

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

RESOLUTION NO. 70-3

PRESCRIBING REQUIREMENTS AS TO THE NATURE OF WASTE DISCHARGE BY
THE CITY AND COUNTY OF SAN FRANCISCO FROM WET WEATHER DIVERSION
STRUCTURES IN ITS SOUTHEAST SEWERAGE ZONE

WHEREAS THIS REGIONAL BOARD HAS CONSIDERED

INFORMATION ABOUT THESE DISCHARGES

1. Information submitted by the City and County of San Francisco, referred to as the discharger below, and by others provides the data itemized below and other data included in a staff report reviewed by this Board in considering this matter.

The discharger's Southeast sewerage system has been designed to transport all sewage and industrial wastes plus storm water resulting from up to 0.02 inch per hour, of rainfall to the Southeast plant for primary treatment. Wet weather flows in excess of this capacity are bypassed from 13 diversion structure outfalls. These bypassed discharges are described as follows:

DISCHARGE		OUTFALL SIZE Width X Height or Diameter	Elevation of Crown re MLLW(b)	PEAK FLOW During 5 yr. Storm(c)-MGD(d)	DISCHARGE LOCATION
Number	Name				
29	Mariposa St.	6'	+8.27'	193	Central Basin
30	Twentieth St.	2'	+2.67'	Negl.	Central Basin
31	No. Third St.	3.5x5.25'	+5.47'	84	Islais Creek
32	Marin St.	10'x8'	+7.67'	710	Islais Creek
33	Selby St.	3(a)-(10'x7.5')	+9.17'	1740	Islais Creek
34	Rankin St.	5'	+9.64'	52	Islais Creek
35	So. Third St.	4.5'	+3.67'	65	Islais Creek
36	Hudson St.	2.5'	+12.17'	55	India Basin
37	Evans Ave.	6'	+11.40'	102	India Basin
38	Griffith St.	5.5'	+7.22'	150	South Basin
39	Yosemite Ave.	9'x7.25' & 11.5'x6.5'	+7.42'	590	South Basin
40	Fitch St.	6.75'	+6.38'	102	South Basin
41	Sunnyvale Ave.	6.5'	+6.17'	334	Candlestick Cove

- (a) Number of barrels
- (b) Mean Lower Low Water
- (c) These flows result for a short period from a peak rainfall intensity of 1.5 inches per hour
- (d) • Million Gallons per Day

A diversion outlet at Mendell Street has been sealed and no longer discharges.

Information provided by the discharger indicates that during some storms there are overflows from the sewer system onto City streets that enter Bay waters.

Peak rates of rainfall much greater than averages occur during small but frequent storms and cause surges of flow which may be very costly to treat.

- 2. The discharger has requested permission to use Islais Creek as a holding basin to achieve necessary chlorine contact time.
- 3. The discharger is developing a masterplan in accordance with this Board's Resolution No. 68-77 which will provide for the treatment and disposal of wet weather flows. The Baker Street Air Flotation Facility and the extended outfall therefrom are being constructed to develop data for that masterplan.
- 4. This Board's Resolutions Nos. 69-43 and 69-44 required the discharger to submit a preliminary engineering report and cost estimates for facilities needed to achieve ranges of quality limits for several criteria. Some portions of this report should be pertinent to the feasibility of compliance with quality limits specified in this resolution.
- 5. This Board has adopted policy guidance with respect to the receiving waters affected by these wastes with its Resolutions Nos. 803, 67-1 and 67-30.

CORRESPONDENCE

This Regional Board has considered correspondence about this matter from:

- 1. State Department of Fish and Game in its memorandum dated January 22, 1970.
- 2. State Department of Public Health in its memorandum dated September 5, 1969.
- 3. State Department of Water Resources in its memorandum dated January 26, 1970.

STAFF INVESTIGATION

- 1. These wastes can affect the following beneficial uses of the Central San Francisco Bay and contiguous waters:

Industrial cooling water in the vicinity of the Pacific Gas and Electric Company's (P. G. & E.) generating plants at Potrero and Hunters points.

Swimming, wading, pleasure boating, marinas, launching ramps, fishing and shellfishing

Firefighting and industrial washdown

Fish, shellfish and wildlife propagation and sustenance, and waterfowl and migratory bird habitat and resting

Navigation channels and port facilities

Esthetic enjoyment.

2. Land uses within 1000 feet of one or more of these discharges include:

Residential and recreation

Industrial and commercial

Transportation and port facilities.

RESOLVED BY THIS REGIONAL BOARD

BOARD INTENT

1. Protect public health as it may be affected by this waste discharge.
2. Prevent nuisance, as defined in Section 13050(m) of the California Water Code.
3. Protect the beneficial water uses listed under "Staff Investigation" above.

In accordance with Section XVII of its Resolution No. 803, this Board has received a report from the Department of Fish and Game dated August 26, 1968, which describes beds suitable for shellfishing that are located along the Bayshore south of Candlestick point, along the shoreline of Alameda County and in Richardson Bay, Marin County.

This Board will consider the matter of protecting these beds for the taking of shellfish for human consumption after it has reviewed a report to be submitted by the State Department of Public Health in accordance with Resolution No. 803.

4. Reconsider the areal and time limits over which these requirements apply after receipt of additional information on the costs and feasibility of providing waste treatment and disposal facilities needed to treat flows from storms of various intensities and on shoreline development plans.
5. Encourage the investigation of deepwater outfalls for all wet weather discharges.
6. Overflows from the sewer system onto City streets are considered to be waste discharges when they enter Bay waters and are subject to the requirements contained herein.
7. That treatment facilities for wet weather flows be constructed and operated so that the initial discharges are treated sufficiently to comply with the requirements contained herein.

WASTE DISCHARGE REQUIREMENTS - RECEIVING WATERS

1. The treatment or disposal of waste shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. None of the discharges shall:
 - a. Unreasonably affect any of the protected beneficial water uses resulting from:

Floating, suspended, or deposited macroscopic particulate matter, foam, oil, or grease in waters of the State at any place; floating oil shall be considered present if in enough quantity to cause iridescence;

Bottom deposits at any place;

Aquatic Growths at any place;

Color or turbidity:

More than 400 feet from discharges Nos. 29, 30, 36, 37, 38, 40 and 41 or beyond the mouths of Islais Creek and the Yosemite Channel.

- b. Cause waters of the State to exceed the following limits of quality at any place within one foot of the water surface:

pH	7.0 minimum 8.5 maximum
Dissolved oxygen	5.0 mg/l minimum
Dissolved sulfide	0.1 mg/l maximum
Nutrients	to be prescribed at the earliest practicable date
Other substances	any one or more substances in concentrations that impair any of the protected beneficial water uses or make aquatic life or wildlife unfit or unpalatable for consumption
Bacterial concentrations	in excess of a median value of 240 MPN coliform per 100 ml, as determined in any five consecutive samples collected at any one station, or any single sample to exceed an MPN coliform concentration of 10,000/100 ml at any time.

Bacterial concentrations
(Continued)

Whenever either of these bacterial values is exceeded in the receiving water for any reason they shall both be met instead in the waste at some point in the treatment process, provided that at least one sample is collected from the initial portion of waste discharged during a storm. The discharger may demonstrate compliance in the waste stream as an optional alternative.

The Board will accept proof of effective effluent disinfection in terms of factors other than bacterial concentrations if the discharger documents a sound statistical correlation between such factors and bacterial analysis, and provided the conditions of sewage strength and treatment do not change from the demonstration period.

WASTE DISCHARGE REQUIREMENTS - WASTE STREAM

All waste streams discharged to waters of the State shall meet these quality limits at all times:

In any representative sample:

Toxicity: survival of test fishes in 96-hour bioassays of the waste as discharged

Any sample 75% minimum

Average of any three or more consecutive samples collected during any 21 or more days 90% minimum

In any grab sample:

Grease 25 mg/l maximum

Settleable matter 1.0 ml/l/hr. maximum

This Board considers these two limits to be goals rather than requirements and will consider requirements for settleable matter, grease and/or floatable matter after reviewing additional information on the costs and other information relative to the feasibility of compliance therewith.

PROHIBITIONS

This Board prohibits all dry weather waste discharges from diversion structure outfalls described herein. (Reference: Section 13243, California Water Code.)

REPORTING REQUIREMENTS

1. The discharger is required to submit a report to the staff of this Board within 60 days after the adoption of this resolution, said report to include descriptions of and firm and detailed time schedules for all studies and investigations necessary to determine the following:
 - a. Costs and other information relative to the feasibility of compliance with the above objectives for settleable matter and grease.
 - b. Means for compliance with the above toxicity and pH requirements.

The above studies to consider, but not necessarily be limited to the control of grease, toxicants and pH at their sources.

- c. Costs and other information relative to feasibility of compliance with all other requirements contained herein in relation to flows up to the hydraulic capacity of each diversion structure outfall. Such studies to include but not necessarily be limited to regulation of peak runoff rates and to areal and time considerations.

The staff is instructed to maintain close liaison with the City staff and consultants during the period of these studies to ensure that the City's program to control its wet weather discharges is proceeding expeditiously and to report back to the Board whenever they deem that Board considerations are warranted.

2. The discharger is required to submit a written technical report to this Board at least 15 days prior to advertising for bids on any construction project for sewerage facilities which could cause the discharge of wastes in violation of these requirements; said report to describe the nature, costs and scheduling of all actions necessary to preclude such discharge.

(References for items 1 and 2 above - Section 13267, California Water Code and this Board's Resolution No. 398.)

3. This resolution includes items numbered 1, 6 and 7 of the attached "Reporting Requirements", dated January 1, 1970.

NOTIFICATIONS

1. This Regional Board hereby notifies the Department of Public Health of the City and County of San Francisco and the California Water Resources Control Board of suspected contamination caused by sewers overflowing onto City streets during wet weather.

(Reference: Section 13225(F), California Water Code.)

2. This Resolution includes items numbered 1, 2, 3, 4, 5, 6 and 7 of the attached "Notifications", dated January 6, 1970 with the following exception to item No. 6:

"Color" means color as observed under field conditions.

WILLIAM C. WEBER
Chairman

January 29, 1970

I, Fred H. Dierker, hereby certify that the foregoing is a true and correct copy of Resolution No. 70-3, adopted by the California Regional Water Quality Control Board - San Francisco Bay Region at its regular meeting on January 29, 1970.

FRED H. DIERKER
Executive Officer
CALIFORNIA REGIONAL WATER QUALITY CONTROL
BOARD - SAN FRANCISCO BAY REGION

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
January 1, 1970

REPORTING REQUIREMENTS

1. This Board requires the discharger to file technical reports on self-monitoring work performed according to detailed specifications developed pursuant to the Regional Board's Resolution No. 398. (Reference: Sections 13267(b) and 13268, California Water Code.)
2. This Board requires the discharger to file a written report within 90 days after the average dry-weather waste flow for any month equals or exceeds 80% of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:

Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.

The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of his facilities.

The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units. (Reference: Sections 13260, 13267(b) and 13268, California Water Code.)

3. This Board requires the discharger to file a time schedule for engineering studies on facilities needed to comply with the Board's receiving water objective of 5.0 mg/l of dissolved oxygen and/or to file a time schedule for deciding upon the feasibility of participating in regional water quality control systems if he does not meet that dissolved oxygen objective after providing waste treatment facilities which comply with the effluent BOD requirement prescribed elsewhere in this Resolution. (Reference: Sections 13267(b) and 13268, California Water Code.)
4. This Board requires the discharger to file technical reports on studies into correcting violations of the Board's water quality objectives caused by discharging combined storm water and sewage. Specifications for these studies shall be developed pursuant to the Board's Resolution No. 398. (Reference: Sections 13267(b) and 13268, California Water Code.)

5. This Board requires the discharger to file written reports within 15 days after each calendar quarter to include:

Name of and number of lots in each subdivision for which an application has been received for connection to the sewerage system.
Anticipated date of connection of each subdivision to the sewerage system.

Finding and supporting data by governing body on effect of addition of each subdivision on violation of waste discharge requirements.

(Reference: Section 11551.6 Business and Professions Code and Sections 13267(b) and 13268, California Water Code.)

6. This Board requires the discharger to file a report on waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge. (Reference: Sections 13060(b) and 13264, California Water Code.)
7. This Board requires the discharger to file a written technical report at least 15 days prior to advertising for bids on any construction project which would cause or aggravate the discharge of waste in violation of these requirements; said report to describe the nature, costs, and scheduling of all actions necessary to preclude such discharge. In no case should any discharge of sewage bearing wastes be permitted without at least primary treatment and chlorination. (Reference: Sections 13267(b) and 13268, California Water Code.)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
January 6, 1970

NOTIFICATIONS

1. This Board requests the discharger to take note of the comments and recommendations contained in all the correspondence the Board has received and considered concerning this matter, and the Executive Officer is directed to transmit copies of that correspondence to the discharger.
2. This Board considers "Waters of the State" as defined in Section 13050(e) of the California Water Code to include waste waters over which the discharger has lost control.
3. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under Federal, State, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
4. This Board will prescribe more restrictive requirements for this waste discharge if necessary:

To achieve or maintain dissolved oxygen concentration of at least 5.0 mg/l in tidal waters of the San Francisco Bay System pursuant to Resolution No. 67-30,

To protect shellfishing areas which the Board designates pursuant to Resolution No. 803,

To protect the beneficial water uses, and to achieve other objectives adopted in the resolutions cited above.

5. This Board will review these requirements periodically, as required by law, and will notify the responsible persons before doing so. (Reference: Section 13263(e), California Water Code.)
6. The water quality parameters used in this resolution are as defined in the latest edition of "Standard Methods for the Examination of Water and Wastewater" by the American Public Health Association.
7. The discharger is advised that this Board will use the general concepts of Phase I of the plan recommended by the Final San Francisco Bay-Delta Program Report as guidelines in reviewing any application for construction grants for sewerage facilities proposed to comply with these requirements, and if the discharger intends to make such application he must demonstrate the compatibility of the proposed facilities with the general concepts of the Bay-Delta Program.